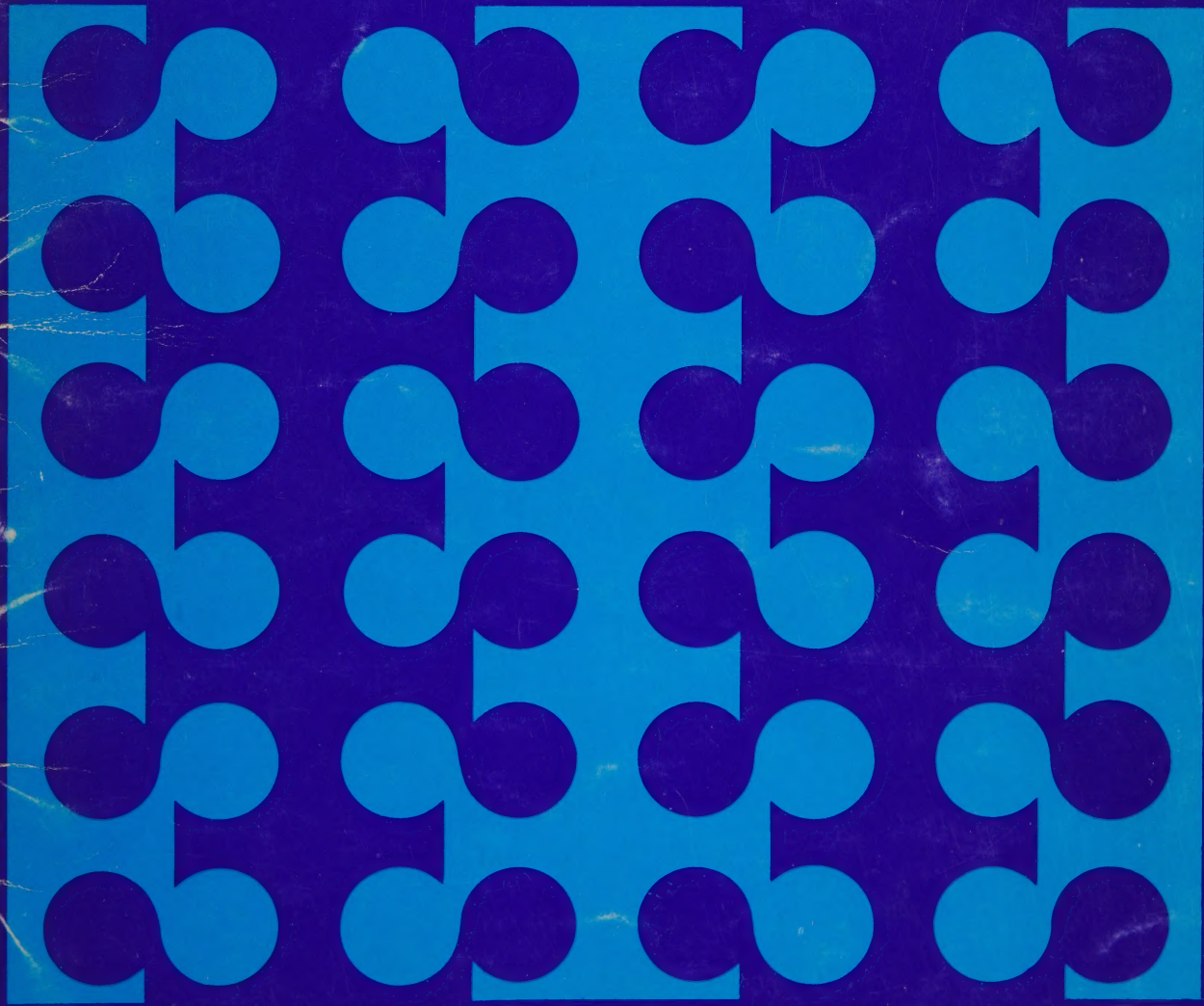


POST-SECONDARY EDUCATION IN NORTHWESTERN ONTARIO

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Commission on Post-Secondary Education in Ontario



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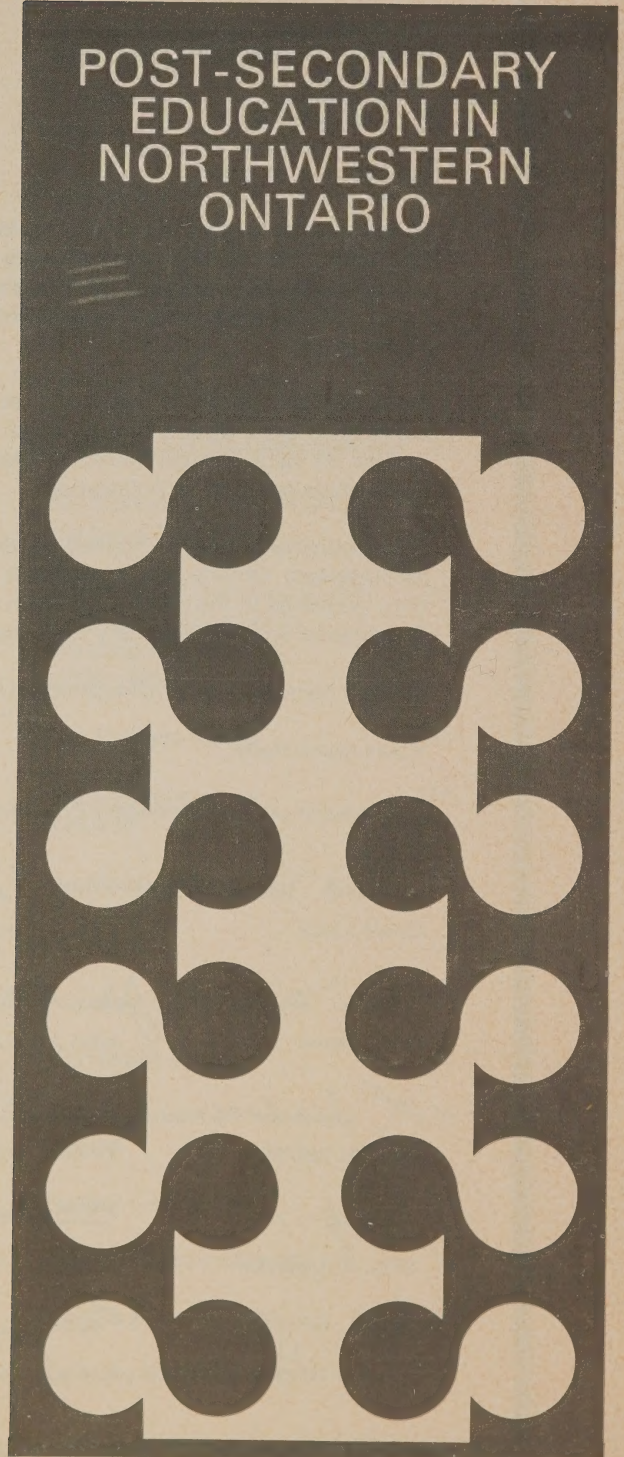
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Commission on
Post-Secondary
Education in Ontario

POST-SECONDARY
EDUCATION IN
NORTHWESTERN
ONTARIO



The Honourable George A. Kerr, Q.C.
Minister of Colleges and Universities
Queen's Park
Toronto 5, Ontario

Dear Sir:

As specially requested by the Honourable William G. Davis when he was Minister of Education and Minister of University Affairs, we studied the organization of post-secondary education in Northwestern Ontario in relation to the needs of the citizens of that part of the Province. The Northwestern Ontario Report is the result of this study.

Following the terms of reference set out for the Commission, we previously published a draft version of this report. As detailed in the introduction, we made a number of visits and conducted extensive discussions with people in the region, both before and after its publication.

The recommendations contained in this report reflect the special character of Northwestern Ontario and supplement the general philosophy and recommendations published in the draft of our main report for all Ontario, "Draft Report of the Commission on Post-Secondary Education in Ontario".

We now have the honour of submitting to you our final report of this special study.

Yours respectfully,

Commission on Post-Secondary Education in Ontario

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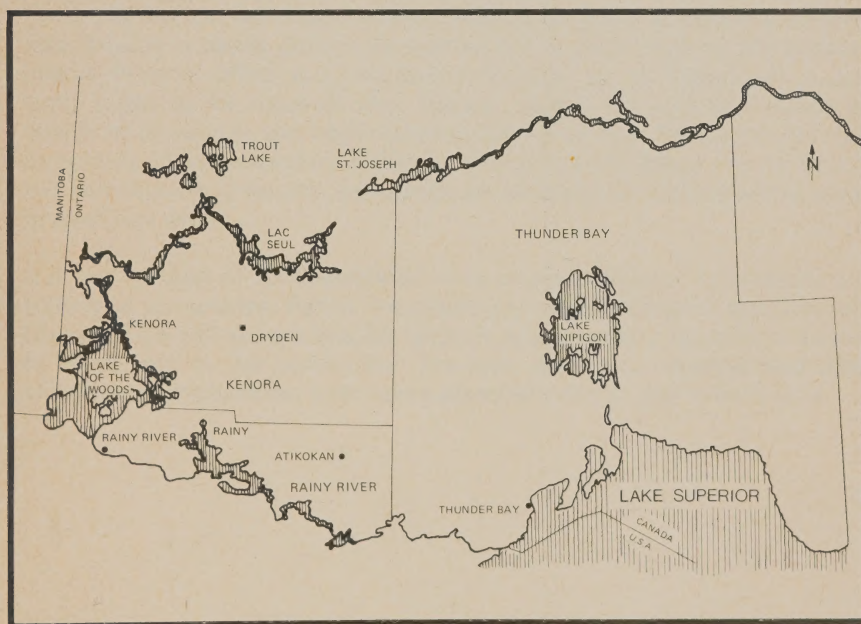
PREFACE



The report is presented in two main sections. The first is an examination of post-secondary education in the Northwestern Region of Ontario and treats the Commission's inquiry into the post-secondary educational needs of the region. The findings and recommendations of the Commission conclude the report.

A second section of the report, not reprinted here, notes some aspects of the political economy of Northwestern Ontario.¹ It provides an outline of some of the socio-demographic factors operating within the region. This section describes in written and tabular form the unique nature of the region, its vast distances, sparse population and often harsh climate. This section was an integral part of the Commission's Draft Report on Post-Secondary Education in Northwestern Ontario (November 12, 1970) and is on file in the libraries of the institutions concerned and also at the offices of the Commission.

Northwestern Ontario Development Region



1 *The Northwestern Ontario Regional Development Program—A Progress Report.* Regional Development Branch, Department of Treasury and Economics, 1969.

Design for Development: Northwestern Ontario Region—Phase 2: Policy Recommendations. Regional Development Branch, Department of Treasury and Economics, 1970.

Introduction

This report results from the request to the Commission on Post-Secondary Education in Ontario by the Minister of Education and Minister of University Affairs, the Honourable W. G. Davis, in a letter of 11th February, 1970. That letter asked the Commission to assess the situation in Thunder Bay with respect to the responsibilities of Lakehead University and Confederation College and "the degree of co-operation and/or integration that might be carried out between the two organizations in order to serve best the educational needs of the people of the Lakehead district and, indeed, all of Ontario."

*At the outset, it may be worthwhile to outline the concerns of the Commission that lie behind the report and the recommendations that follow. It is the view of the Commission that the people of Northwestern Ontario must have access to diverse programs of post-secondary education of good quality. The primary concern of this report is to suggest a method that ensures services that are adequate for the distinctive needs of Northwestern Ontario.

Any solution must also preserve and build on previous efforts. A number of worthy innovations have already resulted from the intensive work of persons at both Confederation College and Lakehead University. For example, at Lakehead University diploma and degree students interact and share facilities in a manner that may provide a useful pattern for institutions in other areas of the province. A Special Projects Office at Confederation College has developed new courses of study suited to the needs of adult Indians. Indeed, the work of members of the Boards of Governors and administrative officials of both institutions has fostered acceptance of post-secondary education throughout the region. For the future, the full participation of faculty, administration, students and citizens will be necessary to meet new needs.

It is not the wish of the Commission in its recommendations to cause any present activity to be curtailed. Rather, the object is to suggest change or the parameters of change which will allow a broader range of post-secondary educational services to be distributed to the community. The two institutions involved have different philosophies of education: both have a prominent role to play in the future.

Development of Post-Secondary Education in Northwestern Ontario

Confederation College and Lakehead University in Thunder Bay are the principal institutions of post-secondary education in Northwestern Ontario. Confederation College, opened in 1967, is one of twenty colleges of applied arts and technology in Ontario. Although housed initially in temporary buildings, the College now has a permanent site and construction of a teaching and administrative complex was largely completed in the fall of 1970.

For the academic year 1970-1971, Confederation College enrolled 791 students in twenty-five different programs. Table 1 in Appendix A (p. 25) shows the enrolment by program at Confederation College for each year of operation. Confederation College administers the Ontario Manpower Retraining Program for Northwestern Ontario. In 1969, 521 students were enrolled in extension courses.

Lakehead University evolved from the Lakehead Technical Institute which began operations in what was then Port Arthur in January, 1948. In September of 1948, the Institute offered first-year university courses. Lakehead College of Arts and Science was established in 1957. The control and government of Lakehead Technical Institute were transferred to the Board of Governors of Lakehead College in 1956. Second-year Arts courses were added to the curriculum in 1960-1961. In 1962, the original Lakehead College of Arts, Science and Technology Act was amended to give Lakehead College the power to establish faculties and to confer university degrees in Arts and Science. Baccalaureate degrees were first conferred in 1965.

Technical education at Lakehead University is now offered within the University Schools. A Bachelor of Science in Nursing was introduced as a program of the University Schools in 1966. The first degrees in this program were conferred in 1967. The University Schools also offer programs leading to a degree or a diploma in various areas of science and technology. In September of 1967, graduate study was initiated in a number of disciplines. In 1969, the total graduate and undergraduate enrolment was 2,545 in degree and diploma programs. Enrolment data by program is presented in Table 2.

The Commission's Inquiry

In response to the request from the Minister of University Affairs and Minister of Education, the Commission arranged for meetings between a panel comprising three members (Commissioners Black, Macaulay and Wright) and the Secretary and Director of Research of the Commission, Dr. B. B. Kymlicka, and representatives of the Board of Governors, administration, faculty and students at both Lakehead University and Confederation College on April 13th and 14th, 1970. These meetings were preceded by a request from the Commission to both institutions asking for information relevant to the Commission's inquiry. Although the information gained during these meetings was worthwhile, the need to understand the regional requirements for post-secondary education more deeply was apparent.

As a result, Commissioners Black and Macaulay each visited some of the northern communities such as Atikokan, Fort Frances, Kenora and Dryden during the last week in May 1970 where they met for informative discussion with secondary school students and teachers, principals, directors of education, employers and concerned citizens.

Mr. Black, representing the Commission, attended a seminar at Atikokan, June 12th and 13th, on the relationship between vocational training in secondary school and the requirements of employment and post-secondary education. These meetings were particularly helpful in acquiring an appreciation of the unique needs of Northwestern Ontario in post-secondary education. On October 14th and 15th, the original study panel met in Thunder Bay for meetings with representatives of the two institutions. Again, separate meetings were held with representatives of the Board of Governors, administrative officials, faculty and students.

In addition, the Commission relied upon the generous co-operation of the Departments of Education, University Affairs, Treasury and Economics and the Ontario Hospital Services Commission.

Following the preparation and publication of this report in draft form in November 1970, further visits have been made by members of the Commission to Northwestern Ontario for additional discussions. A panel composed of Commissioners Black, Cherry, Kelly and Newnham visited Dryden, Kenora, Red Lake and Sioux Lookout, November 23rd to 25th. A panel composed of Commissioners Black, Cherry, Kelly and Kirkaldy visited Atikokan, Fort Frances, Geraldton, Manitouwadge, the Quetico Centre, Red Rock and Schreiber, January 4th to 8th, 1971. On January 12th, Commissioners Black, Macaulay and Wright visited Thunder Bay to meet with representatives of the special institutional Joint Committee which had just been established.

Finally, on February 18th and 19th, 1971, Commissioners Gerstein, Wright, Black, Cherry and Ladyman visited Thunder Bay again for discussion concerning the results of the work of the Joint Committee. This extensive program of visits was dictated by the need to consult carefully with the interested parties in Thunder Bay and in other parts of Northwestern Ontario. The insight gained has been invaluable. While the burden of time and expense involved has been considerable, it must be related to the millions of dollars spent on post-secondary education in the region, and the critical need for effective understanding of the special problems of the region.

The Findings and Recommendations

Since the scope of this inquiry involves both the concerns of people and the estimation of future needs, this section of the report is in five parts. The first is a summary of the concerns expressed by the people of the region and the Commission's perceptions of the present situation. The second deals with the nexus of data and estimates required to help predict future needs. The third and fourth parts state the problem and enumerate the considerations which must be taken into account in its solution. Finally, the fifth part sets out the recommendations of the Commission.

The Concerns of the People and Some Problems

Not surprisingly, the concerns of people the Commissioners talked with were not unlike those of people elsewhere. Students wanted an education which provided definite job skills as well as knowledge. The concerns of other persons reflected a desire to have more educational and cultural benefits which until recently have been lacking in the region due to factors of distance and small population. The educators with whom the Commissioners met sincerely wished to provide the educational services that would meet the requirements of a regional economy as well as the needs of persons wishing to migrate to other areas of economic opportunities.

The concern of residents in the region has three major components:

- a. increased opportunities for post-secondary education to facilitate regional development,
- b. education for social mobility,
- c. the presence of enhanced cultural and learning activities that occur around institutions of post-secondary education.

From this matrix of concern and need it is easy to see that the two existing institutions face a difficult task. The socio-demographic characteristics of the region (e.g. relatively slow population growth) present a challenge to those who wish to satisfy the legitimate needs of the regional population for post-secondary education. However, a number of factors other than demographic, such as weather and long distances, are exacerbating the problem. Less than 50 per cent of the region's population is within commuting range of any campus in Thunder Bay. The lack of co-ordination between Lakehead University and Confederation College has not made it easy to meet this challenge.

Lakehead University grew out of the Lakehead Technical Institute, retaining the course offerings of that institute. This process gave Lakehead University a peculiar status compared to that of other universities in Ontario. However, the presence of this unique institution did not provide Northwestern Ontario with a facility comparable in scope with that provided by the colleges of applied arts and technology being established elsewhere in the province. Accordingly, it was not

unreasonable that Confederation College was established in Thunder Bay to provide the communities of Northwestern Ontario with the same full scope of services expected elsewhere in the province. The addition of new courses at Confederation College not available at Lakehead University, and the administration of the Ontario Manpower Retraining Program by the College, demonstrated in part the need for such an institution.

Since the University was—and still is—in an emerging state, and quite dependent for financial viability on its enrolment in non-degree (technical) programs, it was natural that an element of rivalry developed between the College and the University.

In some ways, this rivalry has worked to the advantage of the people of Northwestern Ontario. Competition for academic and instructional excellence in their partly similar fields no doubt serves the students well. Also, in reaching out for students, admission requirements in both institutions have developed a flexibility which may have broadened the availability of post-secondary education in that part of Ontario.

However, the advantages of rivalry may have been outweighed by some less desirable consequences.

The natural tendency of the newer college to develop its own identity has pre-empted the attention of its officials and left little time to work towards the co-ordination of programs and facilities with those of Lakehead University. Although some academics on the staff of one institution teach part-time at the other, contacts and dialogue between the two administrations were virtually non-existent before the work of the Commission stimulated certain discussions. Although both institutions are funded by the Government of Ontario, there is a sense of competition between the College and the University for the post-secondary tax dollar. Enrolment projections, on which future capital commitments tend to be based, seem to be optimistic beyond patterns prevailing elsewhere in Ontario.²

These and other factors have led to an egocentric preoccupation held by both institutions, in investing the major part of their capital in facilities and equipment located in Thunder Bay. It is stated, with only partial logic, that degree programs require concentrated effort and investment in one place in order to achieve maximum efficiency and academic competence. It is suggested, with even less logic, that effort and investment in the non-degree, diploma education in Northwestern Ontario should also be concentrated in Thunder Bay.

In developing curricula to serve what are believed to be the educational needs of the area, both Lakehead University and Confederation College have followed generally the traditional examples of similar institutions in more densely populated areas of the province, although this pattern may not be the most effective in meeting the needs of people in Northwestern Ontario. Obviously, new patterns and new methods must be developed to satisfy a unique situation.

2 This point is developed in Appendix A of the report.

One of the greatest needs in Northwestern Ontario is academic upgrading for employees of basic industry, as well as for citizens in outlying communities. The traditional in-school curricula at Confederation College and Lakehead University sequestered in Thunder Bay have not responded to this need.

Other factors may operate to inhibit co-ordination and planning of post-secondary educational efforts in the region. To some extent, such factors act together to make co-ordination even more unlikely: for example, separate libraries may be desirable and necessary to the separate institutions, but separate library facilities and processes may be counter-productive when viewed in the context of overall need.

Following are the patterns of activity or fact which may tend to inhibit future co-ordination of the total effort:

- a. Heavy investments in fixed facilities have been made at both institutions.
- b. Having accepted the premise of independent development, the pressure to grow forces each institution to duplicate resource facilities. Both have television studios but, unfortunately, do not use tape sizes that are compatible. As a consequence, the use of video-tape equipment in outlying areas at reasonable cost is made more difficult.
- c. Both institutions are developing separate library facilities.
- d. The University has playing fields and a gymnasium; the College wishes to develop similar facilities.
- e. Each institution has its own computer, incompatible with the other. Both computer facilities are under-utilized.
- f. Similar workshops and laboratories have been duplicated.
- g. The existence of two institutions calls for two administrative operations. As a result, overhead costs per student are high.
- h. College students are torn between a demand for transferability to university and a desire for a unique curriculum which would have the effect of decreasing such transferability.
- i. Concentrating the development of Confederation College facilities in Thunder Bay means that both capital and operating budgets are also concentrated there. The majority of people in Northwestern Ontario must go to Thunder Bay to see evidence of Ontario's investment in post-secondary education in the region. For many the trip is 300 or 400 miles. For some, it is more attractive and easier to travel to a larger centre in Southern Ontario, Quebec, Winnipeg, or to the neighbouring states to the south.
- j. Since the Boards of Governors of the two institutions had never met to discuss matters of mutual interest, it is unlikely that an effective process of voluntary co-ordination may develop and flourish.
- k. The population of Thunder Bay has been virtually static, gaining about 1 per cent per year. Any increase in enrolment, therefore, must come primarily from outside that city.

l. Since the educational investment is concentrated in Thunder Bay, there seems to be insufficient attention devoted to:

- i the very difficult problem of extension work in general,
- ii the provision of relevant educational services designed in co-operation with Indians, many of whom live on reservations.

In 1969-70, there were fewer than twenty-five full-time Indian students enrolled in the two institutions combined. This represents less than 1 per cent of the total full-time, post-secondary enrolment in the region.³ Although there were 635 Indians enrolled in Manpower Retraining programs during 1969 in the region, more funds and thought must be applied to increasing post-secondary opportunities for the Indian people by providing goals that are not only meaningful but also attainable.

Indeed, an extraordinary admissions program which removed formal hurdles for many capable Indian and non-Indian people would do much to enhance accessibility to post-secondary education. In view of the results of experimental work in other jurisdictions, such a program may be extremely rewarding both for the institutions and the persons concerned.

m. The view has been expressed on behalf of the University that it must retain the technology diploma programs to have an effective northern studies program. Confederation College has said that it requires these same students if it is to become effective.

The Probable Demand for Post-Secondary Education in Northwestern Ontario (1970-1980)

Any consideration of future educational needs in the region must be related to anticipated numbers of students.

The demand for post-secondary education in Northwestern Ontario is not easily determined. There has been, and continues to be, a high out-migration rate among the 19-44 age group. This is, of course, the group most likely to want some form of post-secondary education. While cognizant of the difficulties involved in forecasting enrolments, this part of the report provides a basis for an estimate of what is most likely to be the number of students in post-secondary education during the period 1970-1980. A comparison is made between the forecasts developed here and those of the institutions involved. The section concludes with an analysis of the capital requirements necessary to meet the estimated need and the capital requirements suggested by both institutions.

There are two methods of estimating probable demand for post-secondary education. The first is to examine the year-by-year cohort of 19-year-olds, following each cohort through the educational system. While such a flow analysis is most desirable, there is a serious lack of data both at the provincial and regional

3 Although the problem has historical roots, there is a degree of regressivity present, beyond the patterns prevailing throughout the province.

levels. Consequently, construction of a flow analysis at this time would not be useful. The second procedure is to examine the number of Grade 12 and 13 retirements and to estimate from that pool the number likely to enter some form of post-secondary education. This second procedure is developed here to estimate the need for post-secondary education to 1980.

Table 5 (p. 28) shows the enrolment in Grades 12 and 13 from 1960 to 1969 for the region. Table 6 is a forecast of the structure of secondary school enrolment in Northwestern Ontario to 1982. From Table 6 an estimate of full-time post-secondary student enrolment from 1973 to 1982 is generated (Table 13).⁴

The major implication for this study is that secondary school enrolments will almost certainly peak about 1976-77 in the region, as in the rest of Ontario. The immediate result of this peak in enrolments is that enrolment of traditional character at the post-secondary level will peak three to four years later. Thus, after about 1979-1980, enrolments will tend to stabilize, or even decline, for most institutions of post-secondary education in the province and in the region.

For the purposes of this analysis, concentration may be focussed on full-time student enrolment in 1975 and 1980. The first period is the last year for which either institution has suggested capital requirements and the latter, the period of the highest probable enrolment and, hence, largest capital requirement.

It is not unreasonable to expect the post-secondary student enrolment to increase as more citizens wish to participate in one way or another. At present, the freshman intake for all forms of post-secondary education in the region is more than 40 per cent of the 19-year-old population of the region. This participation rate is liable to increase to 50 per cent in the next few years. It is unlikely, although not impossible, that the participation rate will increase to 60 per cent before the end of the 1970s. It is improbable that the participation rate will reach 70 per cent.

Such a high participation rate is much greater than that of any other jurisdiction.⁵ Accordingly, this study assumes that the post-secondary student population of the region will range between a low suggested by the 50 per cent participation rate and a high suggested by the 60 per cent participation rate.

Figure 1 compares the most probable expectation expressed as a high and low with institutional expectations.

4 The assumptions, methodology and data sources for the projections are detailed in Appendix A.

5 It must be remembered that the major factor affecting the size of the student population in the region will be economic and not the attractiveness of education per se. If the high migration rate from the region continues through the 1970s, the absolute numbers suggested here are seen to be optimistic.

Figure 1 Institutional Enrolment Expectations

	Lakehead	Confederation	Total	Probable Development	
				Low (50%)	High (60%)
1975	4,550	3,050	7,600	4,993	5,546
1980	4,550	3,400	7,950	5,753	6,562

The bases for the 1980 figures are the projections supplied to the Commission by the the institutions.

Source: *Lakehead University Development Requirements 1969-1975: A Brief to the Committee on University Affairs*, 1969.

Master Development Plan: Confederation College of Applied Arts and Technology, 1967.

Clearly, there is a discrepancy between institutional expectations and what is probable. The largest number of students for which the institutions have been developing plans is 7,950 for 1977. This expectation appears unrealistic. Even with an improbably high participation rate of 70 per cent, the number of students in 1980, the year of largest expected enrolments, would still fall short of 7,500.

With such a discrepancy between institutional projections and what seems probable, what are the implications for capital requirements in the region? Table 16 (p. 37) presents capital projects to date and projected capital requirements. Figure 2 presents probable capital costs per student for 1977 and 1980, expressed in 1970 dollars.⁶

Figure 2

Total Planned Capital Expenditures to 1977: \$73,200,000

(Expressed in 1970 dollars)

		Low	High
Projected to 1977:	No. of Students	5,428	6,046
	Capital per Student Place	\$13,486	\$12,107
Projected to 1980:	No. of Students	5,753	6,562
	Capital per Student Place	\$12,724	\$11,156

Public capital is discussed in connection with Table 5 (p. 28)

Source: *Lakehead University Development Requirements 1969-1975: A Brief to the Committee on University Affairs*, 1969.

Master Development Plan: Confederation College of Applied Arts and Technology, 1967.

6 These capital costs do not include the capital costs associated with the Lakehead Regional School of Nursing, although the number of students does include nurses. Accordingly, the capital cost given per student is understated. 1977 is utilized due to the vagaries of the various master plans.

Although Figure 2, for a number of reasons, understates the capital cost per student, there is a large difference between institutional plans and what is probable. The problem is compounded by the fact that institutional expectations regarding capital costs per student place are higher than experience in the province would support. Although exact data are not presently available, province-wide experience suggests capital costs of between \$6,500 and \$8,000 per student. This figure is considerably less than the approximate capital cost of \$12,000 to \$13,500 per student (1977) that the plans of the two institutions would necessitate. It is apparent that Lakehead University and Confederation College are at present planning expenditures on the basis of projected enrolments that are unlikely. The two institutions plan to ask for capital assistance which is \$25 to \$30 million in excess of that which is most likely to be required.

The Problem Stated

The view of the Commission regarding the provision of post-secondary educational services in Northwestern Ontario may be summarized as follows: although both Confederation College and Lakehead University have developed mainly within the traditional framework of education, *specialized programming is required as well to meet the needs of the entire region. Also, because of the near-term growth requirements of the region, some rationalization of effort in the delivery of educational services to residents is necessary.*

Considerations for a Solution

To serve the region effectively, institutions of post-secondary education in Northwestern Ontario must play a triple role through conventional programs, distinctive regional programs, and special extension programs.

Conventional courses to which the students in the region have as much right as students elsewhere in the province must be offered. However, it is reasonable to develop only a range of programs for which costs can be maintained at reasonable levels. In programs such as medicine or dentistry, where unit costs are very high, it would of course be more economical to send students from the region to other centres in the province.

Beyond courses of conventional character, there is obvious potential for courses of special regional character which might be of higher than typical cost but which, by their uniqueness, would be justifiable and which, accordingly, might attract students from other regions. In essence, costs must be related to province-wide standards and should only be higher where, for some basic reason, higher costs are essential.

Given the vast area of Northwestern Ontario, the relatively small size of its population centres and the great distances between them, it is obvious that considerable effort and ingenuity must be expended in designing a program of extension studies that will service the area adequately.

Previous experience throughout the province suggests that a university requires a minimum of 4,000 undergraduates, or their equivalent, to be viable for a full range of activity. Although the experience of the community colleges in Ontario is more recent, it is likely that a community college will also require up to 4,000 or more full-time students or their equivalent, depending upon course offerings, to be viable.

It is doubtful that either Lakehead University or Confederation College can be independently viable with full, multi-faculty programs. If Confederation College is to exist, it must acquire the diploma students currently under the aegis of Lakehead University. If this were to happen, the University would no longer be viable.

Consequently, any arrangements of post-secondary educational services for North-western Ontario must minimally provide:

- a. a specialized technological program,
- b. special extension work, involving retraining and cultural activities in isolated communities,
- c. general undergraduate arts and science training and such undergraduate professional or pre-professional programs (e.g. education, nursing, forestry, etc.) as analysis can show to be appropriate and economically and academically viable.

This description of minimal requirements is not intended to preclude the development or continued operation of other programs where a need may exist at present, or in the future. Although there is nothing within the framework of the minimal requirements outlined above to necessitate traditional high-cost research and graduate programs, a number of points can be made.

The recent rapid expansion of graduate facilities throughout Ontario means that few, if any, additional graduate programs of conventional character need to be developed in the province. Rapid changes are occurring throughout Western Europe and North America in the funding of graduate and research programs. Although definite patterns have not yet emerged, the probable impact will be that new graduate programs will concentrate on innovative or interdisciplinary work. Lakehead University, by virtue of its location, may prove to have certain natural advantages in the development of programs such as northern studies.

Necessary connections between undergraduate work, graduate work and research are limited. While undergraduate teaching can be done well without the presence of graduate programs, one cannot be a teacher without continuing to learn. At any rate, it is not proposed to limit the present scope of the legislative act governing the Lakehead University operation.

Without regard to any of the previously mentioned assumptions, any post-secondary educational structure in the region must distribute educational services throughout the whole region and attempt to reach the greatest number of people.

Also, the limited number of students must be well served without duplication or inefficient use of resources. Finally, the structure must be responsive, in part, to local needs and initiative. Special resources may need to be earmarked for unique programs. The effectiveness of such special programs should be reviewed regularly.

The minimum criteria for distributing educational services to the region are as follows:

- a. unified planning and management of physical resources,
- b. common use of facilities, such as computers, student services, gyms, libraries, fixed-function laboratories, residences, health services, etc.,
- c. substantial integration of effort in planning and operating extension programs,
- d. extensive development of potential areas of co-operation.⁷

Recommendations

The performance requirements outlined above are the same as those defined in November 1970, in the draft report of the Commission. The draft report also noted the Commission's view that not only was co-ordination and co-operative planning urgently needed, but that such co-ordination would need to be fully structured under an effective authority responsible at least for any new physical plant and negotiation with the various Government departments concerned with funding.

It was the Commission's intent to challenge the interested parties concerned with the institutions to develop some processes for governance and operation that would effectively satisfy these criteria. In February 1971, the Joint Committee established by the two institutions proposed a process of voluntary co-ordination to be articulated in various ways. The Commission is firmly of the view that a process of voluntary co-ordination does not meet the criteria and therefore cannot be recommended. This is due to the general relative ineffectiveness of voluntary co-ordination in educational affairs and the particular historic lack of co-ordination between the two institutions which led, in part, to the Commission's investigation.

The Commission agrees that the specialized and different functions performed by the two institutions ought to remain and that the variety of services and roles should also remain. The Commission does not regard these services and roles as competing but rather as complementary functions.

As the Commission's study on post-secondary education in Northwestern Ontario has evolved, it becomes even more evident that institutional arrangements appropriate to more densely populated regions of the province are not necessarily

7 For example, the Lakehead Faculty of Education could assist the development of extension programs in general and programs in co-operative planning with the Indian population in particular. Indeed, other departments or faculties might be profitably involved in such endeavours.

appropriate to less densely populated regions. For a full and effective range of services to be provided, and despite inevitable budgetary limitations, it is the Commission's impression that special arrangements must be made to meet local needs. In view of all the factors outlined in this report and in this concluding analysis, the Commission therefore recommends:

1. Confederation College and Lakehead University should continue as institutions of post-secondary education in Thunder Bay subject to the following clauses:
2. The two institutions shall be governed by a single Board, the rights, responsibilities and composition of which shall be established as outlined below:
 - a. The meetings, processes and papers of the Board of Governors shall be open to the public, excepting only instances involving personalities and strategic business decisions during processes of negotiation, where confidentiality may be necessary.
 - b. The Board shall be responsible for the development and approval of all capital, operating and new programs, based upon its assessment of the needs of the region. Meetings of the Board shall be held regularly in communities outside Thunder Bay. Occasional meetings in Thunder Bay, and portions of meetings held in other communities, shall be arranged as public hearings so that expressions of public opinion on the programs and services of the institutions can be heard. Public notice of all Board meetings shall be provided.
 - c. Provision shall be made for the payment of the actual amounts spent in travelling and living expenses to members of the Board of Governors for attending meetings of the Board.
 - d. The Board shall publish and distribute in an inexpensive form an annual report summarizing its activities and plans devoted to the service of the post-secondary educational needs of the region.
 - e. The Board of Governors shall consist of:
 - The President of the College, the President of the University and the Director of Extension, who shall be *ex officio* members;
 - Fourteen members appointed by the Lieutenant Governor in Council of whom six shall be selected from nominations of the nine Boards of Education of Northwestern Ontario;
 - Three members elected by the academic staff from among the academic staff of the College;
 - Three members elected by the academic staff from among the academic staff of the University;
 - Two members elected by the students of the College from among the students of the College;
 - Two members elected by the students of the University from among the students of the University;

- A quorum shall consist of thirteen members, including no fewer than seven of the members appointed by the Lieutenant Governor.
3. The Board shall, within one year of its establishment, propose new legislation or amendments to existing legislation to be reviewed in five years, that shall incorporate the following principles and criteria for the delivery of post-secondary educational services in Northwestern Ontario:
- a. that each institution shall have its own academic planning authority (the Senate at Lakehead University and an academic council at Confederation College) responsible for academic planning;
 - b. that each institution shall have its own administration and support services, subject to the authority of the Board to determine, from time to time, those areas of activity where the pooling of resources for given functional responsibilities could better serve the academic purposes of the two institutions;
 - c. that a single and unified program of extension services be established with one Director of Extension, from the bases available in the present extension efforts of the two institutions, the better to serve the full needs of the region;
 - d. that special, extra-formula grants should be available from the government for such extension services, to offset the additional costs incurred because of the great distances involved, and to provide incentive for the delivery of educational services throughout the region;
 - e. that extra-formula operating and capital grants given to offset small-scale operations be related to the combined enrolment of the two institutions.

It is the opinion of the Commission that this is a practicable solution which meets, to the fullest extent possible, the several concerns and needs identified. Most important, it provides for the continued operation of the two institutions, within a framework in which the pooling of resources for more effective utilization may always be identifiable in the context of the total range of services provided by the institutions as perceived by members of the unified Board and as expressed in their forthcoming legislation.

If these recommendations of the Commission are accepted, special legislation will be required. Such special legislation would signify the response of the government and legislature to the special needs of a large and important part of Ontario.

Appendix A

Notes on the Projections

Forecasts of the future are made of the stuff of dreams. The presence of numbers usually addles the mind and hides the assumptions that were made. For the sake of clarity, a list of assumptions is included, as well as the mechanical procedures utilized. Finally, forecasting assumes that underlying assumptions will remain static, which they will not.

1. Assumptions

- a. The initiation of a rational development program will, for the purposes of this analysis, affect the rate of out-migration and the formation of new family units. The short-term effect will be on primary school enrolment. The process over the long term will affect post-secondary enrolments.

These projections incorporate the assumption that the pattern of out-migration has in fact been reversed. The formation of new family units will affect post-secondary enrolments for the period after 1985. The composition of post-secondary enrolments between 1970 and 1985 can only include those individuals born before 1970.

Allowance for the impact of the development plan on the region is contained within the errors of estimation in the projections.

- b. Recent changes in elementary and secondary education, in part spurred by proposals of the Report of the Provincial Committee on Aims and Objectives of Education in the Schools of Ontario (Hall-Dennis), have increased the retention rate of students in the educational system. This retention rate will probably continue to increase as more changes are implemented.
- c. The attractiveness of some form of post-secondary education and the belief that a diploma or degree increases job mobility will also increase secondary school retention rates. Consequently, the participation rate, the number of students entering post-secondary education expressed as a percentage of the 19-year-old population, will probably continue to increase.
- d. The rate at which these changes occur will vary with the socio-economic status of individual students and especially with the presence of a family member with experience of post-secondary education. These two factors will for some time result in slightly lower rates of participation in Northwestern Ontario.
- e. The presence of other economic opportunities outside the Northwestern Ontario region, coupled with the inherent attraction of large urban centres, will continue to encourage the migration of large numbers of students from the region. The rate of migration will vary with the provisions of grant and loan schemes.
- f. The secondary school population of the region, as for the province, will probably reach its highest level in 1976. Consequently, the enrolment in post-secondary education in Northwestern Ontario will probably peak shortly thereafter and then level, or decline, slightly.

- g. Detailed regional projections beyond a ten-year period are of little value as the probability of error increases over time. Accordingly, these projections are to 1981.
- h. Enrolment in diploma programs will increase more rapidly than in degree programs. Accordingly, it is assumed that the exact ratio of diploma to degree students is not accurately known.
- i. The number of nursing students at the schools which will form the Lakehead Regional School of Nursing has remained between 300 and 350 for the past few years. Accordingly, 350 are assumed to be present in the regional nursing school. The student nursing population is contained within the aggregate of diploma students.
- j. To obtain the number of graduate students at Lakehead University, the University's own projections were utilized.
- k. The number of students in the Faculty of Education is difficult to project. With elementary and secondary school enrolments declining, the supply of teachers will not need to be expanded further. Enrolments in faculties of education are likely to remain steady rather than grow. The estimate of those in the Faculty of Education is that given by Lakehead University. However, this figure probably represents the peak enrolment that can be expected. Accordingly, little or no growth is assumed for the period after 1974-1975.
- l. The number of students migrating from the region is much greater than those immigrating.

In order to obtain a migration factor for the relevant pool of students, Ontario Student Award Program (OSAP) data were utilized. From this data, migration factors for degree and diploma students were obtained. Of the students giving a permanent address in Northwestern Ontario 38 per cent of degree students and 27 per cent of diploma students attended an educational institution outside the region. It was not possible to utilize OSAP figures to determine student migration to the region. However, data supplied by Lakehead University and Confederation College were utilized to obtain immigration factors. More than 7 per cent of the students attending Confederation College in 1969 were from outside the region, and in 1970-1971 more than 17 per cent of the students were from outside the region. The number of students at Lakehead University from outside the region represented approximately 25 per cent of the total student body. A figure of 25 per cent was then utilized to estimate the number of degree students that might reasonably be expected to immigrate to the region. A figure of 20 per cent was utilized for diploma students. These factors, however, are susceptible to sudden fluctuations as the result of policy changes in other jurisdictions and indeed in institutional policy. Accordingly, the immigration factors are approximations to be used with caution.

It must also be recognized that competition for students by the post-secondary institutions of the province will tend, at the limit, to minimize changes in the growth rate of specific institutions. Thus, competition for students, were it to occur, would be of little effect in changing patterns of student migration over

the long term. The relevant population is limited in numbers and the gain of one institution will be another's temporary loss.

- m. The potential degree student population is assumed to be represented by the Grade 13 population. A factor of .80 is applied to the estimated Grade 13 population to obtain freshman enrolments for degree programs. Although the potential diploma student population is assumed to be represented by the estimated Grade 12 population, the entrance factor will change over time. Accordingly, the degree factor is held constant at .80 and the diploma factor ranges from a low of .27 to a high of .58.
- n. Progression factors for degree and diploma students are estimates based on current progression rates and previous experience elsewhere.
- o. At present, freshman intake is more than 40 per cent of the regional 19-year-old population. It is assumed that the participation rate will increase to 50 per cent in the near future and may increase to 60 per cent towards the end of the 1970s. A participation rate of 70 per cent is improbable.

The tables of projections are constructed for a number of different assumptions. Estimates of full-time post-secondary student population have been made for participation rates of 70, 60, and 50 per cent. For the purposes of this study, participation rate is defined as the ratio of 'freshman intake' to the 19-year-old population of the region, expressed as a percentage. Within the limit of differential participation rates, it is assumed that (a) the migration rate of students will remain relatively constant and (b) that high school retention rates will increase. Migration rates are determined from 1969 OSAP figures, the latest available. The secondary school retention rates utilized are those of 1968-1969. Although it is likely that secondary school retention rates may increase throughout the 1970s, there is no extant procedure to estimate precisely the rate of increase.

The method developed here indicates the enrolment structure of the post-secondary educational system. It is not meant to describe year, course, faculty, or diploma and degree enrolment structure; rather, the intention is to estimate the total, full-time student population for the period 1973 to 1982. The estimate, then, is of the pool of full-time, post-secondary students. This "pool" is expressed as a range for certain indicated maxima and minima.

Although the method does not indicate course and faculty enrolments, areas of potential enrolment growth are indicated. Specifically, extension work designed for the characteristics of the labour force and community college courses for the graduate of the vocationally oriented secondary school courses probably represent the areas of greatest potential enrolment increase.

2. The Mechanics

Since diploma and degree programs draw from both Grade 12 and Grade 13 populations, it is necessary to project populations for those two grades from 1970-1980. Assuming the Grade 9 population as 90 per cent of the birth-rate and

utilizing retention rates of 1968-1969, the estimated enrolment in Grades 12 and 13 in the region is represented in Table 6. These estimates are, under present conditions, optimistic. The Grade 9 population of the region in 1969 represented only 84.9 per cent of the birth-rate of the period 1954-1955. If the present levels of migration from the region continue, then the projections given here will be overly optimistic.

For participation rates of 50, 60, and 70 per cent, freshman intake in diploma and degree courses is estimated. Progression factors for diploma and degree programs are then applied to the cohort. This procedure generates a matrix of first, second, third and fourth year enrolments. By adding along the reverse diagonal for any year the total expected enrolment is generated. It is then necessary to apply a differential factor for migration to the cohort of diploma and degree students. Finally, an immigration factor is applied to diploma and degree students. To the total of degree and diploma students, it is necessary to add students in the graduate and education faculties.

Enrolment Tables

Table 1 Enrolment Statistics – Confederation College 1967-1971

Applied Arts	1967-68	1968-69			1969-70				1970-71			
	Lev.1	Lev.1	Lev.2	Total	Lev.1	Lev.2	Lev.3	Total	Lev.1	Lev.2	Lev.3	Total
Early Childhood Education	15	19	10	29	21	14		35	21	19		40
Social Services	31	17	12	29	14	16		30	23	15		38
Social Services*		13		13	12			12				
Communication Arts		27		27	20	18		38	25	15		40
Recreational Leadership		14		14	18	13		31	24	12		36
General Arts & Science		10		10	36	15		51	39	17		56
Instructional Resources Tech.					12			12	18	6		24
Instructional Resources Tech.*					11			11				
Law and Security†									23			23
	46			122				220				257
Business												
General Business*		11		11	9			9				
General Business**	61	66		66	50			50	54			54
Administrative Mgmnt.			16	16		12		12	9			9
Marketing & Sales Mgmnt.			9	9		16		16		17		17
Accounting Mgmnt.						4		4		12		12
Financial Mgmnt.										6		6
Computer Programming			10	10		10		10				
Bus. Data Processing Systems					22			22	39	11		50
Secretarial Arts*		12		12	9			9				
Secretarial Arts††	25	20		20	24			24	38			38
Legal Secretarial	1	4		4	6			6				
Medical Secretarial	5	13		13	9			9	13	2		15
Executive Secretarial	4	13		13	8			8	8	4		12
Hotel Resort Restaurant Admin.	13	17	9	26	27	12		39	30	20		50
Hotel Resort Restaurant Admin.*					3			3				
Industrial Relations					10			10	13	9		22
Petroleum and Automobile†									11			11
	109			200				231				296
Technology												
Engineering Technology‡	23	19		19	22			22	30			30
Civil Technology			9	9		10	8	18		12	7	19
Mech. Drafting Technician‡‡	20	21	9	30	7	7		14				
Mechanical Engineering									13	3		16
Electronic Technician	40	45	16	61	39	25		64	46	21		67
Construction Technology‡‡		22		22	15	15		30				
Architectural Technology									23	10	7	40
Radiological Technician		12		12	10			10	12			12
Aviation Maintenance					28			28	38	16		54
	83			153				186				238
Totals	238			475				637				791

* Enrolment figures for Kenora programs which were not held in 1970-71 due to insufficient demand.

† New course, 1970-71.

** At Level 1, students take Gen. Bus. course; at Level 2, the enrolment splits among the *four* courses listed immediately following.

†† At Level 1, students take Secretarial Arts; in 2nd semester of Level 1 and at Level 2, the enrolment splits among the *three* courses listed immediately following.

‡ At Level 1, students take Engineering Technology course; at Levels 2 and 3, the course is called Civil Technology.

‡‡ See course immediately below for 1970-71 enrolment figures (course has been re-named).

Table 2

Enrolment Statistics — Lakehead University 1965-1971

Full-Time Enrolment (Actual)

Degree Programs:	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
Arts						
B.A.—General	279	474	586	765	966	847
B.A.—Honours	2*	14*	99	164	184	308
M.A.	—	—	3	11	15	34
Ph.D.	—	—	—	—	—	—
Total	281	488	688	940	1,165	1,189
Science						
B.Sc.—General	112	167	182	229	194	221
B.Sc.—Honours	—	4*	31	54	57	62
M.Sc.	—	—	3	6	12	17
Ph.D.	—	—	—	—	—	—
Total	112	171	216	289	263	300
University Schools:						
B.Comm.—Honours	6	13	26	61	77	124
B.A.Sc. (1st two yrs.)	20	29	40	62	46	76
B.Sc. Forestry (1st two yrs.)	8	11	21	35	61	87
B.Sc. Nursing	4	35	68	90	122	113
B.P.H.E.	—	—	—	—	74	125
Total	38	88	155	248	380	525
Faculty of Education:						
B.Ed.	—	—	—	—	—	102
B.A., B.Ed.; B.Sc., B.Ed.	—	—	—	—	—	92
Total	—	—	—	—	—	194
Total Degree Programs:						
Undergraduate	431	747	1,053	1,460	1,781	2,157
Graduate	—	—	6	17	27	51
Total	431	747	1,059	1,477	1,808	2,208
Diploma Programs:						
Graduate Diploma Bus. Admin.	—	—	—	10	15	6
Total	—	—	—	10	15	6
Education—1 yr. Elem. Dipl.	—	—	—	—	178	151
Education—2 yr. Elem. Dipl.	—	—	—	—	—	31
Business Administration	91	126	141	114	97	86
Bus. Admin. (Computer Systems)	—	—	26	41	48	18
Engineering Tech. (chemical, civil, electronic, mechanical)	68	55	82	84	107	116
Forest Tech.	70	46	74	90	107	101
Forest Research Tech./Logging (Certificates)	—	—	10	15	10	16
Library Tech.	—	20	52	44	48	80
Mining Tech.	15	17	—	—	—	—
Regional School of Nursing (1st yr.)	111	123	125	116	115	118
Ryerson Arch. Tech. (1st yr.)	13	12	16	9	8	—
Ryerson Eng. Tech. (1st yr.)	34	37	—	—	—	—
Total	402	436	526	513	718	717

* 4th year only

Summation:

Undergraduate Degree	431	747	1,053	1,460	1,781	2,157
Graduate Degree	—	—	6	17	27	51
Undergraduate Diploma	402	436	526	513	718	717
Graduate Diploma	—	—	—	10	15	6

Total	833	1,183	1,585	2,000**	2,541	2,931
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** revised audited figure

Part-Time Course Registrations (Actual)**Regular Session:****Undergraduate**

Arts—General	745	941	862	1,203	1,708	1,442
Arts—Honours	30	42	111	77	56	80
Science—General	25	22	12	26	26	32
Science—Honours	—	—	5	8	40	60
Commerce	—	—	—	10	3	14
Engineering	—	—	—	1	—	5
Forestry	—	—	—	1	—	—
Nursing	—	53	72	109	51	50
Phys. Ed.	—	—	—	—	—	5
Other—Diploma Students	—	—	45	47	—	—
Other—Dept. of Ed. Certif.	—	92	—	—	—	—

Total	800	1,150	1,107	1,482	1,884	1,688
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Graduate

M.A.	—	—	5	2	4	11
M.Sc.	—	—	3	8	1	4
Dipl. Bus. Admin.	—	—	—	23	6	17

Total	—	—	8	33	11	32
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Summer School:

Arts—General	536	686	800	1,029	1,168	1,428
Arts—Honours	—	—	41	54	72	67
Science—General	—	17	28	18	25	38
Science—Honours	—	—	5	6	40	28
Commerce	—	—	—	4	6	7
Nursing	—	15	26	65	55	43
Phys. Ed.	—	—	—	—	—	12
Engineering	—	—	—	—	—	1
Forestry	—	—	—	—	—	1

Total	536	718	900	1,176	1,366	1,625
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Total Part-Time Course Registrations	1,336	1,868	2,015	2,691	3,261	3,345
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Table 3

Enrolments in Schools of Nursing In Northwestern Ontario, 1966-1970

Institution	1966	1967	1968	1969	1970
McKellar General Hospital	143	146	136	76	76
General Hospital (Port Arthur)	102	117	70	36	37
St. Joseph's General Hospital	72	66	55	28	28
Lakehead Regional School of Nursing	—	—	69	190	191
Total	317	329	330	330	332

Relationship of Annual Live Births to Grade 9 Enrolment
in Northwestern Ontario

Table 4

Period	Annual Live Births	Grade 9 Enrolment			Year
	Two-Year Average	Number of Students	% of Births		
1945-46	3,317	3,330	100.4		1960
1946-47	4,125	3,947	95.7		1961
1947-48	4,522	4,289	94.8		1962
1948-49	4,539	4,046	89.0		1963
1949-50	4,538	3,963	87.3		1964
1950-51	4,559	4,173	91.5		1965
1951-52	4,793	4,010	83.7		1966
1952-53	5,036	4,133	82.0		1967
1953-54	5,239	4,378	83.6		1968
1954-55	5,399	4,583	84.9		1969

Table 5

Student Progression Pattern in Northwestern Ontario Secondary Schools
1960-1969

	Grade 9	Grade 10	Grade 11	Grade 12	Grade 13
1960-61	3,330	2,526	1,773	1,346	507
		.827	.825	.823	.487
1961-62	3,947	2,753	2,085	1,459	655
		.831	.793	.826	.491
1962-63	4,289	3,280	2,183	1,722	661
		.803	.813	.867	.438
1963-64	4,046	3,443	2,665	1,892	755
		.900	.851	.866	.505
1964-65	3,963	3,642	2,930	2,308	956
		.896	.792	.841	.508
1965-66	4,173	3,552	2,887	2,405	1,172
		.866	.837	.871	.462
1966-67	4,010	3,576	2,974	2,516	1,112
		.915	.855	.874	.440
1967-68	4,133	3,669	3,059	2,600	1,109
		.953	.890	.902	.460
1968-69	4,378	3,937	3,266	2,760	1,197
		.951	.892	.906	.448
1969-70	4,583	4,162	3,513	2,960	1,237
Mean Progression Rate 1964-1969		.916	.853	.879	.464
Mean Progression Rate 1967-1969		.952	.891	.904	.454

Secondary School Population Structure, 1965-1982

Live Births

Period	Two-Year Average	Year	Grade 9 (* .90)	Grade 10 (* .95)	Grade 11 (* .89)	Grade 12 (* .90)	Grade 13 (* .45)
1950-51	4,559	1965	4,103				
1951-52	4,793	1966	4,313	3,898			
1952-53	5,036	1967	4,532	4,098	3,469		
1953-54	5,239	1968	4,715	4,306	3,647	3,122	
1954-55	4,399	1969	4,859	4,479	3,832	3,282	1,405
1955-56	5,055	1970	4,550	4,616	3,986	3,448	1,477
1956-57	5,779	1971	5,201	4,323	4,108	3,588	1,552
1957-58	6,070	1972	5,463	4,941	3,847	3,697	1,614
1958-59	6,108	1973	5,497	5,190	4,398	3,462	1,664
1959-60	6,052	1974	5,446	5,222	4,619	3,958	1,558
1960-61	6,112	1975	5,508	5,174	4,648	4,157	1,781
1961-62	6,037	1976	5,433	5,226	4,605	4,183	1,871
1962-63	5,717	1977	5,145	5,162	4,651	4,145	1,882
1963-64	5,349	1978	4,814	4,888	4,594	4,186	1,865
1964-65		1979		4,573	4,350	4,134	1,884
		1980			4,070	3,915	1,861
		1981				3,663	1,762
		1982					1,648

* Entrance factor of live births to Grade 9 and progression factor to Grades 10, 11, 12 and 13.

Table 7

Place of Attendance of OSAP Recipients Giving Permanent Address in Northwestern Ontario, 1969-1970

Outside Ontario	#	In Ontario	
British Columbia	9	Northwestern Ontario	
Alberta	7	By Institution:	
Saskatchewan	2	Lakehead University	822
Manitoba	62	Confederation College	206
Quebec	6	Lakehead Regional School of Nursing	8
Nova Scotia	4	Total	1,036
Europe	2		
United States	86	Outside Northwestern Ontario	
Total	178	Universities	362
		CAATs	64
By Type of Institution		Teachers' Colleges	5
University	149	Nursing	10
College	12	Other	6
Other	17	Total	447
Total	178		
Total OSAP Awards Utilized by Northwestern		447 (Ontario)	
Ontario Recipients Outside of the Region:		178 (Outside Ontario)	
	Total	625	

Table 8

Attendance of OSAP Recipients by Type of Institution, 1969-1970

Total Number of OSAP Recipients Giving Permanent Address in Northwestern Ontario		1,661
Number of Awards Utilized at Institutions Outside Ontario		178
Number of Awards at Ontario Universities:		
Lakehead University		822
Other		362
		<hr/>
Total		1,184
Number of Awards at Colleges of Applied Arts and Technology:		
Confederation College		206
Other		64
		<hr/>
Total		270
Other:		
Teachers' Colleges (Outside Area)		5
Lakehead School of Nursing		8
Other Schools of Nursing		10
Other Institutions (Outside Area)		6
		<hr/>
Total Number of Awards		1,661
		<hr/>

Table 9

Pool of Entrants to Post-Secondary Education
in Northwestern Ontario, 1969-1972*

Freshman Intake as Mean Percentage of Regional 19-year-old population

Year	Grade 12	Grade 13	Degree	50%		60%		70%		19-year-old population projection**
				Grade 12 x factor†	Diploma	Grade 12 x factor	Diploma	Grade 12 x factor	Diploma	
1969††	3,282	1,405								
1970††	3,448	1,477	1,124	.27	886	.36	1,182	.50	1,681	
1971	3,588	1,552	1,181	.27	931	.36	1,241	.50	1,724	4,361
1972	3,697	1,614	1,242	.27	969	.36	1,292	.50	1,794	
1973	3,462	1,664	1,290	.27	998	.36	1,331	.50	1,849	
1974	3,958	1,558	1,331	.27	935	.36	1,246	.50	1,731	
1975	4,157	1,781	1,246	.27	1,069	.36	1,425	.50	1,979	
1976	4,183	1,871	1,425	.27	1,122	.36	1,497	.50	2,079	4,862
1977	4,145	1,882	1,497	.27	1,129	.36	1,506	.50	2,092	
1978	4,186	1,865	1,506	.28	1,161	.38	1,575	.51	2,114	
1979	4,134	1,884	1,492	.28	1,172	.40	1,674	.53	2,219	
1980	3,915	1,861	1,507	.29	1,199	.41	1,695	.55	2,274	
1981	3,663	1,761	1,489	.29	1,135	.43	1,683	.56	2,192	5,052
1982			1,410	.30	1,099	.45	1,648	.58	2,125	

* When reading these tables, it is necessary to consider the cautionary material contained in the "Notes on Projections."

** Source: Department of Treasury and Economics.

† The Grade 12 factor applied only to diploma students. The factor for degree students in all cases is assumed to be .80 of the estimated Grade 13 population.

†† Not actual. This figure is obtained from matrix generated by assumptions for projections.

Table 10

Estimated Number of Degree Students, 1973-1982

	First Year	Second Year	Third Year	Fourth Year	Total	Migration Discount	Immigration	Total No. of Degree Students
	(* .80)	(* .80)	(* .86)	(* .38)		(* .62)	(* .25)	
1970	1,124							
1971	1,181	899						
1972	1,242	945	773					
1973	1,290	994	813	294	3,391	2,102	526	2,628
1974	1,331	1,032	854	309	3,526	2,186	547	2,733
1975	1,246	1,065	888	325	3,524	2,185	546	2,731
1976	1,425	996	916	337	3,674	2,278	570	2,848
1977	1,497	1,140	857	348	3,842	2,382	596	2,978
1978	1,506	1,198	980	326	4,010	2,486	622	3,108
1979	1,492	1,205	1,030	373	4,100	2,542	636	3,178
1980	1,507	1,194	1,036	391	4,128	2,559	640	3,199
1981	1,489	1,206	1,026	394	4,115	2,551	638	3,189
1982	1,410	1,191	1,037	390	4,028	2,497	624	3,121

* Progression factor.

Table 11

Estimated Number of Diploma Students, 1972-1982

	First Year	Second Year	Third Year	Total	Migration Discount	Immigration	Total No. Diploma Students
		(* .80)	(* .1)		(* .73)	(* .20)	
50% Participation Rate							
1972	969	745	71	1,785	1,303	261	1,564
1973	998	775	75	1,848	1,349	270	1,619
1974	935	798	78	1,811	1,322	264	1,586
1975	1,069	748	80	1,897	1,385	277	1,662
1976	1,122	855	75	2,052	1,498	300	1,798
1977	1,129	898	86	2,113	1,542	308	1,850
1978	1,161	903	90	2,154	1,572	314	1,886
1979	1,172	929	90	2,191	1,599	320	1,919
1980	1,199	938	93	2,230	1,628	326	1,954
1981	1,135	959	94	2,188	1,597	319	1,916
1982	1,099	908	96	2,103	1,535	307	1,842
60% Participation Rate							
1972	1,292	993	95	2,380	1,737	347	2,084
1973	1,331	1,034	99	2,464	1,799	360	2,159
1974	1,246	1,065	103	2,414	1,762	352	2,114
1975	1,425	997	107	2,529	1,846	369	2,215
1976	1,497	1,140	98	2,735	1,997	399	2,396
1977	1,506	1,198	114	2,818	2,057	411	2,468
1978	1,575	1,205	120	2,900	2,117	423	2,540
1979	1,674	1,260	120	3,054	2,229	446	2,675
1980	1,695	1,339	126	3,160	2,307	461	2,768
1981	1,683	1,356	134	3,173	2,316	463	2,779
1982	1,648	1,346	136	3,130	2,285	457	2,742

* Progression factor

Table 11 continued

	First Year	Second Year (* .80)	Third Year (* .1)	Total	Migration Discount (* .73)	Immigration (* .20)	Total No. Diploma Students
70% Participation Rate							
1972	1,794	1,379	131	3,304	2,412	482	2,894
1973	1,849	1,435	137	3,421	2,497	499	2,996
1974	1,731	1,479	144	3,354	2,448	490	2,938
1975	1,979	1,384	148	3,511	2,563	513	3,076
1976	2,079	1,583	138	3,800	2,774	555	3,329
1977	2,092	1,663	158	3,913	2,856	571	3,427
1978	2,114	1,674	166	3,954	2,886	577	3,463
1979	2,219	1,691	167	4,077	2,976	595	3,571
1980	2,274	1,775	169	4,218	3,079	616	3,695
1981	2,192	1,819	178	4,189	3,058	612	3,670
1982	2,125	1,754	182	4,061	2,965	593	3,558

* Progression factor

Table 12

Forecast of Full-time Post-Secondary Enrolment in
Northwestern Ontario, 1973-1982

Total Student Population								
	Immigration to region			Graduate Students	Faculty of Education	Of 19-year-old Population, Freshman Intake represents		
	50%	60%	70%			50%	60%	70%
1973	796	886	1,025	73	455	3,451	3,901	4,599
1974	811	899	1,037	86	480	3,508	3,948	4,634
1975	823	915	1,059	100	500	3,570	4,031	4,748
1976	870	969	1,125	100	500	3,776	4,275	5,002
1977	904	1,007	1,167	100	500	3,924	4,439	5,238
1978	936	1,045	1,199	100	500	4,058	4,603	5,372
1979	956	1,082	1,231	100	500	4,141	4,771	5,518
1980	966	1,101	1,256	100	500	4,187	4,861	5,638
1981	957	1,101	1,250	100	500	4,148	4,867	5,609
1982	931	1,081	1,217	100	500	4,032	4,782	5,462

Table 13

Summary: Forecast of Post-Secondary Full-Time Enrolment

Year	Participation Rate		
	50%	60%	70%
1973	4,775	5,315	6,152
1974	4,885	5,413	6,237
1975	4,993	5,546	6,407
1976	5,246	5,844	6,727
1977	5,428	6,046	7,005
1978	5,594	6,248	7,171
1979	5,697	6,453	7,349
1980	5,753	6,562	7,494
1981	5,705	6,568	7,459
1982	5,563	6,463	7,279

Institutional Enrolment Projections

	1970-71	1971-72	1972	1973	1974	1975	1976	1977
Lakehead University (a)	2,869	3,170	3,441	3,655	3,853	4,070	n.a.	n.a.
Faculty of Education (b)	300	375	425	455	480	(480) *	n.a.	n.a.
Confederation College (c)	1,500	1,850	2,200	2,500	2,775	3,050	3,250	3,400
Confederation College**	815	960	1,120	1,460	1,660	n.a.	n.a.	n.a.
Total†	4,669	5,395	6,066	6,610	7,108	7,600	3,250	3,400

* No figure is given by Lakehead University for the Faculty of Education for the period 1975-76. The previous year's enrolment is utilized to obtain a minimum total full-time enrolment for the period 1975-76.

** This second set of enrolment projections for Confederation College were contained in a communication to the Commission on Post-Secondary Education in Ontario, of March 25th, 1970.

† Total equals the sum of a+b+c for each year. By implication, the largest number of students expected by the institutions is 7,950 in 1977. The total given here is the figure on which capital projects are being based.

Source: *Lakehead University Development Requirements 1969-1975*; Brief to the Committee on University Affairs (1969).

Master Development Plan: The Confederation College of Applied Arts and Technology, 1967.

The Treatment of Public Capital

Accounting for capital projects undertaken by governments represents a special problem. In this study the term capital refers to buildings, equipment, and land. "Capital costs" as developed here are in fact approximations. As a number of different government departments are involved in post-secondary education in Northwestern Ontario and a standard treatment of "public capital" has not been developed, an approximation of previous capital costs is all that is possible.

What is necessary, then, is an estimate of the capital requirements for full-time post-secondary students. Capital and operating costs of Manpower programs administered in the region are acknowledged. As Manpower programs at present are funded separately, and do not involve a significant proportion of the total capital programs, Manpower programs are excluded in discussions of capital unless otherwise indicated. Along with the separate origin of Manpower program funds, there exist severe problems of comparability between students in such programs and those enrolled full time in traditional post-secondary programs.

For this account "public capital" is treated in two ways. Capital costs are expressed in actual dollars and are also standardized to a base year of 1970. Southam construction indices were used to pro rate previous expenditures to the base year. Interest charges on capital projects are ignored, as is depreciation.

In the immediate past, operating grants for universities covered the augmentation, renovation and replacement of existing capital stocks. The logic of this provision to be consistent would require removal of the distinction between capital and operating grants. The desirability of such a distinction is not in question. The existing situation is mentioned to illustrate the differences that exist between traditional notions of capital and the actual treatment of public capital.

In the final analysis an arbitrary, but consistent, procedure must be adopted. Although the issue is raised here, in essence it is skirted and a first approximation deemed sufficient.

Capital Cost Tables

Table 14 **A Capital History of Post-Secondary Educational Institutions
of Northwestern Ontario**

(Expressed in Actual Costs and 1970 Costs, Exclusive of Medical Facilities)

Confederation College 1967-1971

Year	Institution	Actual Cost	Cost in 1970
1967-68	Confederation College	\$ 173,000.00	\$ 205,870.00
1968-69	Confederation College	1,012,000.00	1,153,680.00
1969-70	Confederation College	2,500,000.00	2,750,000.00
1970-71	Confederation College	3,300,000.00	3,300,000.00
		<u>\$6,985,000.00</u>	<u>\$7,409,550.00</u>

Confederation College

(Ontario Manpower Retraining Program)

Year	Institution	Capital Grant
1968-69	Confederation College	\$ 796,339.00*
1969-70	Confederation College	17,000.00
1970-71	Confederation College	—

* Effective January 1st, 1969 Confederation College assumed responsibility for Ontario Manpower Retraining Program.
Figures represent three-month period only from January 1st, 1969 to March 31st, 1969.

Table 15

A Capital History of Post-Secondary Educational Institutions of Northwestern Ontario

(Expressed in Actual Costs and 1970 Costs, Exclusive of Medical Facilities)

Lakehead University* 1955-1971

Year	Institution	Actual Cost	Cost in 1970
Cumulative Total to 1955-56	Lakehead University	\$ 14,971.92	\$ 39,340.11
1956-57	Lakehead University	283,156.38	532,333.99
1957-58	Lakehead University	320,062.56	566,510.73
1958-59	Lakehead University	8,052.91	14,495.23
	Teachers' College	1,808.10	3,254.58
1959-60	Lakehead University	1,353.38	2,354.88
	Teachers' College	23,400.09	40,716.15
1960-64	Teachers' College	940,635.96	1,519,921.49
1964-65	Lakehead University	500,000.00	690,000.00
1965-66	Lakehead University	1,230,000.00	1,611,300.00
1966-67	Lakehead University	1,520,000.00	1,900,000.00
	Teachers' College	1,472.12	1,840.15
1967-68	Lakehead University	5,625,000.00	6,693,750.00
	Teachers' College	13,874.34	16,510.46
1968-69	Lakehead University	9,235,000.00	10,527,900.00
	Teachers' College	5,637.92	6,427.22
1969-70	Lakehead University	5,064,000.00	5,570,400.00
	** Faculty of Education	52,500.00	57,750.00
1970-71	Lakehead University	1,793,000.00	1,793,000.00
	Faculty of Education	50,000.00	50,000.00
		\$26,683,925.68	\$31,637,804.99

* Incorporating Lakehead Technical Institute, Lakehead College of Arts, Science and Technology, and Lakehead Teachers' College.

** In 1969 Lakehead Teachers' College became part of the Faculty of Education of Lakehead University.

Source: Public Accounts: Report of the Minister of University Affairs
and Department of University Affairs.

Table 16

**Projected Capital Requirements for Institutions of
Post-Secondary Education:
Northwestern Ontario 1971-1977**

Year	Institution	Amount
1971-72	Faculty of Education	\$ 400,000
	Lakehead University	3,300,000
	* Confederation College	n.a.
1972-73	Faculty of Education	800,000
	Lakehead University	5,350,000
	Confederation College	6,000,000
1973-74	Faculty of Education	n.a.
	Lakehead University	2,250,000
	Confederation College	(not given by year)
1974-75	Faculty of Education	n.a.
	Lakehead University	2,900,000
	Confederation College	(not given by year)
1975-76	Faculty of Education	n.a.
	Lakehead University	500,000
	Confederation College	(not given by year)
1976-77	Faculty of Education	n.a.
	Lakehead University	n.a.
	Confederation College	7,000,000
Total by Institution		
Fall of 1977:	Faculty of Education	1,200,000
	Lakehead University	14,300,000
	Confederation College	18,661,000
Total		\$34,161,000

* Confederation College does not project capital requirements by year.

Where a year is given the capital requirement is presented.

The total represents total projected capital requirements minus capital expenditures to 1971.

Source: Lakehead University Development Requirements 1969-1975;

A Brief to the Committee on University Affairs, 1969;

Master Development Plan: Confederation College of Applied Arts and Technology.

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Appendix B

Briefs and Discussions

During the activities of the study panel, a number of briefs were presented to the Commission. Also, a large number of concerned persons of all ages participated in discussions with members of the study panel. A list of those who presented briefs and documents is shown below.

Atikokan High School

Confederation College

- Administration
 - Board of Governors
 - Faculty Association
 - Student Affairs Division
 - Students' Union Council
-

Joint Committee of Lakehead University and Confederation College

Kenora

- Advisory Committee for the Confederation College of Applied Arts and Technology
 - Board of Education
 - District Chamber of Commerce
 - Town of Kenora Confederation College Brief Presented to the Minister of Education.
-

Lakehead Regional School of Nursing

Lakehead University

- Administration
 - Alma Mater
 - Alumni Association
 - Board of Governors
 - Executive of Faculty Association
 - Faculty Association
 - Faculty Members of the University Committee
-

Nipigon—Red Rock District High School

Many persons contributed either in writing or conversation to the work of the study panel. Some of the many persons who did so are listed below:

Miss L. Aedy	Mr. M. Garieau	Mr. H. Parker
Mr. S. Agress	Mr. R. Gibson	Mr. J. Patterson
Mr. A. Anderson	Mr. E. Goodall	Mr. P. Paularinne
Mr. R. Anderson	Mr. J. Graveson	Mr. P. Philip
Mr. J. Andrews		Mr. R. Prime
Mr. J. Arblaster	Mr. J. Hall	
	Mr. D. Hay	Mr. A. Rheault
Dr. M. Bartley	Mr. D. Hinton	Mr. T. Ryan
Mr. L. Bates	Mr. H. Hull	
A-V-M. D. Bradshaw		Mr. S. Schnepf
Dr. H. Braun	Mr. E. Jackson	Dr. F. Seha
Mr. D. Brearton	Miss D. Jaggard	Mr. B. Shaffer
Mr. R. Briggs	Dr. C. Johnston	Mr. A. Sinclair
	Mr. M. Johnston	Mr. R. Sloan
Mr. R. Calich		Mr. W. Spain
Miss D. Cauner	Mrs. E. Kidd	Mr. W. Spicer
Mr. G. Caunt	Mr. J. Kramer	Mr. J. Steele
Mr. I. Clark		Mr. R. Steele
Mr. R. Clarke	Mr. E. Laprade	Mr. C. Stuhr
Mr. B. Collins	Mr. A. Lesko	Mr. D. Sweeney
Mr. H. Cook	Dr. J. Litman	Mr. J. Swinton
Mr. W. Cousineau	Mr. E. Litt	
Mr. C. Crocco	Miss A. Loponen	Dr. W. Tamblyn
Mr. K. Cunningham	Mr. J. Lorde	Mr. G. Thompson
Mr. D. Delahunt	Dr. S. Magwood	Mr. H. Vodden
Mr. D. T. Dingwall	Mr. A. Manera	
Mr. D. V. Dingwall	Mrs. G. McCormack	Mr. J. Wall
Mr. B. Dunn	Mr. R. McCormack	Mr. D. Wallace
	Mr. R. Moffat	Mr. H. Wooster
Mr. H. Elmslie	Mr. D. Morgan	and many others.
Mr. E. Enstrom	Mr. K. Morrison	
Mr. L. Exell	Mr. K. Morrow	
	Dr. J. Mothersill	
Mr. J. Ferrier		
Mr. J. Filipouic	Mr. K. Nichols	
Miss D. Flanagan	Mr. H. North	
Mr. R. Flatt		
Mr. J. Fleming	Mr. K. Oakleaf	
Mr. D. Ford	Mr. J. O'Donnell	
Mr. J. A. Fraser		
Mr. J. P. Fraser		
Miss P. Fucile		

